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L9 and commodit\$	1

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DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L10</u>	L9 and commodit\$	1	<u>L10</u>
<u>L9</u>	l6 and auction	14	<u>L9</u>
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<u>L7</u>	l5 and auction	32	<u>L7</u>
<u>L6</u>	((709/204)!.CCLS.)	631	<u>L6</u>
<u>L5</u>	((709/203)!.CCLS.)	2399	<u>L5</u>
<u>L4</u>	L3 and auction	161	<u>L4</u>
<u>L3</u>	L2 and (internet or www or network)	17047	<u>L3</u>
<u>L2</u>	((709/\$)!.CCLS.)	19864	<u>L2</u>
<u>L1</u>	((705/26)!.CCLS.)	1716	<u>L1</u>

END OF SEARCH HISTORY

WEST**End of Result Set**

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L8: Entry 1 of 1

File: PGPB

Sep 12, 2002

PGPUB-DOCUMENT-NUMBER: 20020128949
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020128949 A1

TITLE: Read-only user access for web based auction

PUBLICATION-DATE: September 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wiesehuegel, Leland James	Austin	TX	US	
Roberts, Rebecca Lynn	Austin	TX	US	
Morrison, William James	Gilman	NH	US	
Rzepka, Jacob Marvin	Round Rock	TX	US	

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE	CODE
International Business Machines Corporation	Armonk	NY	US	02	

APPL-NO: 09/ 801613 [PALM]
DATE FILED: March 8, 2001

INT-CL: [07] G06 F 17/60

US-CL-PUBLISHED: 705/37; 709/203, 707/3
US-CL-CURRENT: 705/37; 707/3, 709/203

REPRESENTATIVE-FIGURES: 5

ABSTRACT:

A networked computer arrangement and method in which a manufacturer or service provider may communicate to a plurality of traders the items, including goods and/or services, which may be available for purchase, the quantities of those available items, and any other conditions to be met for the purchase of the available items. Traders may apply guest bidder profiles or entitlement schema to the available goods lists to produce offerings for a plurality of guest brokers. Only bid-relevant product information is presented to each guest broker as needed in order to protect the offering party's overall position on the offered good(s). Guest broker profiles or entitlement schema may be based on perspective contractual arrangements between potential brokers, traders, and a manufacturer or service provider. Offerings are presented to the guest brokers, who are restricted from participating in the bidding process.

WEST**End of Result Set**☐

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L10: Entry 1 of 1

File: USPT

Nov 30, 1999

US-PAT-NO: 5995951

DOCUMENT-IDENTIFIER: US 5995951 A

TITLE: Network collaboration method and apparatus

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ferguson; Bradley	Palo Alto	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Recipio	San Mateo	CA			02

APPL-NO: 08/ 657984 [PALM]

DATE FILED: June 4, 1996

INT-CL: [06] G06 F 15/00

US-CL-ISSUED: 706/10; 395/200.34, 395/200.35, 707/500

US-CL-CURRENT: 706/10; 707/500, 709/204, 709/205

FIELD-OF-SEARCH: 395/212, 395/226, 395/237, 395/11, 395/971, 395/200.31, 395/200.34-200.36, 706/10, 706/925, 705/12, 707/500, 707/530, 707/531

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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<input type="checkbox"/>	<u>5561811</u>	October 1996	Bier	395/825
<input type="checkbox"/>	<u>5587935</u>	December 1996	Brooks et al.	395/500.23
<input type="checkbox"/>	<u>5671428</u>	September 1997	Muranaga et al.	345/329
<input type="checkbox"/>	<u>5790847</u>	August 1998	Fisk et al.	707/4

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0693732	December 1994	DE	

OTHER PUBLICATIONS

Bob Metcalfe, "From dating to voting collaborative filtering will make our choices easier," Info World, Mar. 18, 1996.

Council, Advertisement, Feb. 2, 1997, downloaded Apr. 25, 1997.

Julian Dibbell, "Two Approaches, Top Down and Bottom Up, Represent an Almost Theological Schism in Computer Science," Time, Mar. 25, 1996, pp. 57-58.

Paul C. Judge, "Artificial Imagination," Business Week, Mar. 18, 1996. p. 60.

Gail Kay, "Effective meetings through electronic brainstorming," Journal of Management Development, v14 n6, Dec. 1995.

Larry Stevens, "Groupware offers users methods to work together," MacWEEK, Jun. 27, 1994 v8 n26 p. 41.

Joel Snyder, "Sizing up electronic meeting systems," Network World, v12 n2, Jan. 9, 1995.

Rosemary Hamilton, "Electronic meetings, no more ZZZ's" Computerworld, v26 n37 Sep. 14, 1992.

Martz, "GroupSystems 4.0" IEEE Systems sciences, annual hawaii intl conf, Dec. 1991.

Pierre Balthazard, "Influence allocation methods in group support systems," UMI Dissertation services, University of Arizona, Dec. 1993.

Kirti Srisoepardani, The possibility theorem for group decision making: the analytic hierarchy process, UMI Dissertation services, University of Pittsburgh, Dec. 1996.

George Fox, "The challenge of convergence," System Sciences Annual Hawaii Int'l conf, v4, Dec. 1995.

Qu, "Considerations in running tcp/ip based networks over the x.25 public data network," Information engineering, IEEE Singapore int'l conf. on networks, p. 379, Jul. 1995.

Vuong, "Mobile intelligent agent systems: wave vs java," emerging technologies and applications in communication, conference IEEE p. 196, May 1996.

Collet, "What does a public data internet do?," Computer software and applications conference, compsoc IEEE p. 283, Dec. 1992.

Gehrlein, "The Condorcet Criterion," Mathematical Social Sciences 10 199-209, Feb.

1985.

ART-UNIT: 272

PRIMARY-EXAMINER: Hafiz; Tariq R.

ASSISTANT-EXAMINER: Rhodes; Jason W.

ABSTRACT:

A method implemented on a network of computers for allowing a plurality of users to collaborate in decision making to solve a problem, includes the steps of processing, at a central server, a group of proposals for solving the problem, submitting the group of proposals to the plurality of users at remote clients, and thereafter receiving, at the central server from the plurality of users, selections of proposals from the group of proposals. Determining, at the central server, a narrowed group of proposals in response to the selections of proposals, communicating the narrowed group of proposals to the plurality of users at the remote clients, each proposal in the narrowed group of proposals including sets of statements, and thereafter receiving, at the central server from one of the plurality of users, suggestions for modifying proposals in the narrowed group of proposals, are also included. The method also included determining, at the central server, a modified narrowed group of proposals in response to the suggestions, each proposal in the modified narrowed group of proposals including a modified set of statements, submitting the modified narrowed group of proposals to the plurality of users at remote clients, thereafter receiving, at the central server from the plurality of users, selections of statements from the modified sets of statements of the modified narrowed group of proposals, and consolidating the selection of statements into a proposed solution for the problem.

25 Claims, 16 Drawing figures

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<u>L56</u>	l14 and l53	6	<u>L56</u>
<u>L55</u>	l14 and l54	3	<u>L55</u>
<u>L54</u>	L52 and (diamonds or petroleum near2 products)	49	<u>L54</u>
<u>L53</u>	L52 and diamonds or petroleum near2 products	14265	<u>L53</u>
<u>L52</u>	l51 and characteristics	623	<u>L52</u>
<u>L51</u>	L49 and (commodity or goods or merchandise or products or items)	1375	<u>L51</u>
<u>L50</u>	L49 and commodity	324	<u>L50</u>
<u>L49</u>	L48 and auction	1601	<u>L49</u>
<u>L48</u>	(relational near\$1 database or relational near\$1 data with base)	1295721	<u>L48</u>
<u>L47</u>	l46 and auction	1	<u>L47</u>
<u>L46</u>	pitney bowes.as.	6277	<u>L46</u>
<u>L45</u>	L41 and (bid near3 auctions or dutch near3 auctions or reverse near3 auctions)	762	<u>L45</u>
<u>L44</u>	L43 and tender	57	<u>L44</u>
<u>L43</u>	L42 and bid	1262	<u>L43</u>
<u>L42</u>	L41 and auction	2372	<u>L42</u>
<u>L41</u>	(network or internet or www)	624378	<u>L41</u>
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<u>L30</u>	5890138.pn.	2	<u>L30</u>
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<u>L12</u>	(((705/35)!.CCLS.))	680	<u>L12</u>
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L47: Entry 1 of 1

File: PGPB

Sep 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020138400
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020138400 A1

TITLE: Buying and selling goods and services using automated method and apparatus

PUBLICATION-DATE: September 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Kitchen, Louise J.	Houston	TX	US	
Webb, Jay C.	Houston	TX	US	
Romano, Marcello	London		GB	

APPL-NO: 09/ 895092 [PALM]
DATE FILED: March 22, 2002

RELATED-US-APPL-DATA:

Application is a non-provisional-of-provisional application 60/215471, filed June 30, 2000,
Application is a non-provisional-of-provisional application 60/218473, filed July 14, 2000,

INT-CL: [07] G06 F 17/60

US-CL-PUBLISHED: 705/37

US-CL-CURRENT: 705/37

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

A method and system are provided for a party to buy and sell goods and/or services from and to a plurality of counterparties over a computer network. The party determines a best bid price and a best offer price at which the party is willing to buy or sell a good or service. The party transmits the best bid and offer prices over the computer network, which may be the internet. By accessing the computer network, a counterparty can see a display of a bid and offer price for the good or service. The counterparty can click on the display to send a signal over the computer network to the party, and upon receipt of the signal, the party can buy the good or service from or sell the good or service to the counterparty. The method preferably includes maintaining a list of determined bid and offer prices in a stack manager software, which allows the party to automatically display a next best bid and offer price to the counterparties over the computer network after a transaction is completed.

CROSS-REFERENCE TO RELATED APPLICATION

[0001] Priority and benefit is claimed to U.S. Provisional Patent Application Serial No. 60/215,471, filed on Jun. 30, 2000, and No. 60/218,473, filed on Jul. 14, 2000, and both of these provisional patent applications are incorporated by reference for all purposes.

WEST**End of Result Set**

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L59: Entry 1 of 1

File: DWPI

Aug 14, 2001

DERWENT-ACC-NO: 2001-483524

DERWENT-WEEK: 200173

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TITLE: System for utilizing at least one tender for auction and tender petroleum and other petroleum products has processing device that transmits information corresponding to data, while tender provides complex multi-variable commodity

INVENTOR: MARCHEGIANI, B V

PATENT-ASSIGNEE: PEPEX.NET LLC (PEPEN)

PRIORITY-DATA: 2000US-0496389 (February 2, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200133292 A	August 14, 2001		000	G06F017/30
WO 200157735 A1	August 9, 2001	E	033	G06F017/30

DESIGNATED-STATES: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
AU 200133292A	February 2, 2001	2001AU-0033292	
AU 200133292A		WO 200157735	Based on
WO 200157735A1	February 2, 2001	2001WO-US03570	

INT-CL (IPC): G06 F 17/00; G06 F 17/30

ABSTRACTED-PUB-NO: WO 200157735A

BASIC-ABSTRACT:

NOVELTY - A storage device stores data, which relates to at least one tender. A processing device transmits information corresponding to the data, while the tender is provided for a complex multi-variable commodity. The latter may be a particular commodity whose price determination is based on a variation of a number of variable characteristics e.g. a physical characteristic of the particular commodity. The processing device executes a program on a server.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

- (a) a method for utilizing at least one tender
- (b) a system for utilizing at least one tender
- (c) a method for registering a user to utilize at least one tender on a networked information system

(d) a set of instructions residing on a storage medium

USE - For auction and tender of complex multi-variable commodities such as petroleum and other petroleum products.

ADVANTAGE - Facilitates transactions by providing the automated method and system for the auction and tender.

DESCRIPTION OF DRAWING(S) - The drawing shows a first portion of a flowchart illustrating an embodiment of the process to view the tender and to request changes in the conditions or the terms of the tender according to the present invention.

ABSTRACTED-PUB-NO: WO 200157735A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.4a/5

DERWENT-CLASS: T01

EPI-CODES: T01-H07C; T01-J05A; T01-J05B;

WEST

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L65: Entry 61 of 73

File: USPT

May 29, 2001

US-PAT-NO: 6240400

DOCUMENT-IDENTIFIER: US 6240400 B1

TITLE: Method and system for accommodating electronic commerce in the semiconductor manufacturing industry

DATE-ISSUED: May 29, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chou; Yu-Li	White Plains	NY		
Garg; Amit	White Plains	NY		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE	CODE
International Business Machines Corporation	Armonk	NY				02

APPL-NO: 09/ 024526 [PALM]

DATE FILED: February 17, 1998

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/37; 705/1, 705/500

US-CL-CURRENT: 705/37; 705/1, 705/500

FIELD-OF-SEARCH: 705/37, 705/1, 705/500

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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<input type="checkbox"/>	<u>4903201</u>	February 1990	Wagner	364/408
<input type="checkbox"/>	<u>5101353</u>	March 1992	Lupien et al.	705/37
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<input type="checkbox"/>	<u>6012046</u>	January 2000	Lupien et al.	705/37
<input type="checkbox"/>	<u>6061789</u>	May 2000	Hauser et al.	713/168

OTHER PUBLICATIONS

"AuctioneerSoftware.com Announces Inter-Connex Sell-IT; New Auction Software", Business Wire, Mar. 1999.*
"Ambitious Plan to Build Global eCommerce Trading and Services Platform For The Food Industry Gathers Momentum", PR Newswire, p 1441, Apr. 2000.*
"Southern California Gas allows Users To Solicit Energy Over the Internet", Industrial Energy Bulletin, p. 3, vol. 3, No. 3, Feb. 1999.*
Cavanaugh, Katherine, "Bandwidth's new bargaineers", Technology Review, v. 101, No. 6, pp. 62-5, Nov. 1998.

ART-UNIT: 213

PRIMARY-EXAMINER: Stamber; Eric W.

ASSISTANT-EXAMINER: Robinson-Boyce; Akiba

ABSTRACT:

A method for accommodating electronic commerce in a semiconductor manufacturing capacity market. The method comprises the steps of identifying a plurality of players in the semiconductor manufacturing capacity market, each of which players can solicit capacity in semiconductor manufacturing capacity market; providing a neutral third-party, the neutral third party and the plurality of players configured in a hub arrangement for communicating with each of the plurality of players in semiconductor manufacturing capacity trades; and realizing an open market conditionality between each of the plurality of players and the neutral third party so that the semiconductor manufacturing capacity supplied by one or more of the players can be bought and sold among the players; and, the neutral third party can preserve anonymity of each of the plurality of players soliciting semiconductor manufacturing capacity.

29 Claims, 3 Drawing figures

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L67: Entry 38 of 48

File: USPT

Jul 16, 2002

US-PAT-NO: 6421653

DOCUMENT-IDENTIFIER: US 6421653 B1

TITLE: Systems, methods and computer program products for electronic trading of financial instruments

DATE-ISSUED: July 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
May; R. Raymond	Mathews	NC		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Blackbird Holdings, Inc.	Charlotte	NC			02

APPL-NO: 09/ 169906 [PALM]

DATE FILED: October 12, 1998

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATION This application claims benefit of co-pending U.S. Provisional Application No. 60/062,410, entitled "Systems and Methods for Electronic Trading of Financial Contracts," and filed Oct. 14, 1997. In addition, the present application is related to the following co-pending, commonly assigned U.S. applications, each of which is incorporated by reference as if set forth in full: "Systems, Methods And Computer Program Products For Subject-Based Addressing In An Electronic Trading System," filed Oct. 12, 1998, and accorded application Ser. No.: 09-169,767; "Systems, Methods And Computer Program Products For Monitoring Credit Risks In Electronic Trading Systems," filed Oct. 12, 1998, and accorded application Ser. No.: 09/169,878; and "Switch Engine For Risk Position Discovery In An Electronic Trading System," filed Oct. 12, 1998, and accorded application Ser. No.: 09/169,879.

INT-CL: [07] G06 F 17/60

US-CL-ISSUED: 705/37; 705/36

US-CL-CURRENT: 705/37; 705/36

FIELD-OF-SEARCH: 705/35, 705/36, 705/37, 705/38, 705/39

PRIOR-ART-DISCLOSED:

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<input type="checkbox"/>	<u>3581072</u>	May 1971	Nymeyer	
<input type="checkbox"/>	<u>4674044</u>	June 1987	Kaimus et al.	
<input type="checkbox"/>	<u>4677552</u>	June 1987	Sibley, Jr.	
<input type="checkbox"/>	<u>4903201</u>	February 1990	Wagner	
<input type="checkbox"/>	<u>4953085</u>	August 1990	Atkins	
<input type="checkbox"/>	<u>4980826</u>	December 1990	Wagner	
<input type="checkbox"/>	<u>5003473</u>	March 1991	Richards	
<input type="checkbox"/>	<u>5077665</u>	December 1991	Silvermann et al.	
<input type="checkbox"/>	<u>5101353</u>	March 1992	Lupien et al.	
<input type="checkbox"/>	<u>5126936</u>	June 1992	Champion et al.	
<input type="checkbox"/>	<u>5136501</u>	August 1992	Silverman et al.	
<input type="checkbox"/>	<u>5168446</u>	December 1992	Wiseman	
<input type="checkbox"/>	<u>5193056</u>	March 1993	Boes	
<input type="checkbox"/>	<u>5258908</u>	November 1993	Hartheimer et al.	
<input type="checkbox"/>	<u>5270922</u>	December 1993	Higgins	705/37
<input type="checkbox"/>	<u>5285383</u>	February 1994	Lindsey et al.	
<input type="checkbox"/>	<u>5297031</u>	March 1994	Guttermann et al.	
<input type="checkbox"/>	<u>5375055</u>	December 1994	Togher et al.	
<input type="checkbox"/>	<u>5396552</u>	March 1995	Jahn et al.	
<input type="checkbox"/>	<u>5446885</u>	August 1995	Moore et al.	
<input type="checkbox"/>	<u>5517406</u>	May 1996	Harris et al.	
<input type="checkbox"/>	<u>5557517</u>	September 1996	Daugherty, III	
<input type="checkbox"/>	<u>5594639</u>	January 1997	Atsumi	
<input type="checkbox"/>	<u>5630127</u>	May 1997	Moore et al.	
<input type="checkbox"/>	<u>5802499</u>	September 1998	Sampson et al.	705/35
<input type="checkbox"/>	<u>5819237</u>	October 1998	Garman	
<input type="checkbox"/>	<u>5845266</u>	December 1998	Lupien et al.	705/37
<input type="checkbox"/>	<u>5873071</u>	February 1999	Ferstenberg et al.	705/37
<input type="checkbox"/>	<u>5905974</u>	May 1999	Fraser et al.	
<input type="checkbox"/>	<u>5915209</u>	June 1999	Lawrence	155/31.2
<input type="checkbox"/>	<u>5924082</u>	July 1999	Silverman et al.	
<input type="checkbox"/>	<u>5924083</u>	July 1999	Silverman et al.	
<input type="checkbox"/>	<u>5940810</u>	August 1999	Traub et al.	
<input type="checkbox"/>	<u>5950176</u>	September 1999	Keiser et al.	
<input type="checkbox"/>	<u>5970479</u>	October 1999	Shepherd	705/37
<input type="checkbox"/>	<u>6012046</u>	January 2000	Lupien et al.	705/37
<input type="checkbox"/>	<u>6014627</u>	January 2000	Togher et al.	
<input type="checkbox"/>	<u>6014643</u>	January 2000	Minton	
<input type="checkbox"/>	<u>6098051</u>	August 2000	Lupien et al.	705/37
<input type="checkbox"/>	<u>6134600</u>	October 2000	Liu	

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0 399 850	November 1990	EP	
0 407 026	January 1991	EP	
0 411 748	February 1991	EP	
WO 95 06918	March 1995	WO	
WO 96 05563	February 1996	WO	
WO 96 34357	October 1996	WO	
WO 97 03409	January 1997	WO	

OTHER PUBLICATIONS

Ludwig; "Supervision by risk" Journal of Commercial Lending, v78, p52-60., Nov. 1995; Dialog file 268, Accession No. 00274059.*
"Derivatives tool merger. . . C.ATS Software Inc.; LOR/Geske Bock Associates Inc" Software Industry Report, v28, n4, p4(1), Dialog file 148, Accession No. 08536443; Feb. 19, 1996.*
Maguire"Details on Derivatives: AIG Breaks Down Exposure by Industry"; Insurance Accountant; Jun. 13, 1994; p. 1; vol. 4, No. 23.*
Jerome Yen, Ho Geun, Lee and Tung BUI; Intelligent Clearinghouse:Elrctronic Marketplace with Computer-Mediated Negotiation Supports;Proceedings of the Twenty-Ninth Hawaii International Conference on System Sciences, Proceedings of HICSS-29; 29.sup.th Hawaii International conference on System Sciences, Wailea, HI, US, Jan. 3-6, 1996; pp. 219-2217, vol.3; XP002097382 ISBN 0-8186-7330-3, 1996; Los Alamitos, California, IEEE Computer Soc. Press.

ART-UNIT: 2765

PRIMARY-EXAMINER: Hafiz; Tariq R.

ASSISTANT-EXAMINER: Jeanty; Romain

ABSTRACT:

An internet-protocol based anonymous trading system which enables traders to identify bids and offers which they are eligible to trade based upon a color coded methodology which gives the trader credit preference information about the potential counterparty while still maintaining the anonymity of the potential counterparty. To that end, each bid or offer is prescreened against all possible counterparties' credit information in the system and each counterparty sees a unique color coded trading interface based upon their particular credit preference combinations and the others in the system. The system then shows all prices in the system, and the color-coding tells the trader which prices he is able to trade, and also shows him the full depth of the market, including those the trader is unable to trade.

47 Claims, 40 Drawing figures

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L67: Entry 38 of 48

File: USPT

Jul 16, 2002

DOCUMENT-IDENTIFIER: US 6421653 B1

TITLE: Systems, methods and computer program products for electronic trading of financial instruments

Brief Summary Text (4):

In recent years, commodity exchanges have become more and more dependent upon electronic trading systems. The older manual methods by which trades were conducted have given way to advanced computer systems that have generally mimicked the manual methods of old. These relatively new electronic trading systems have many advantages over the manual systems, including the ability to provide such features as greater accuracy, reduced labor cost, real time market information, more efficient communications over greater distances, and automated record keeping. However, because the markets in which these commodities are being traded are so vastly different from the descriptions of the instruments to the transaction methodologies, electronic trading systems are generally limited to a specific market such as futures, cash, oil, stock, securities, etc., and sometimes even to a specific commodity within a single market.

Brief Summary Text (28):

The market information provided to the user is coded with credit preference data generated by referencing the complex credit preferences inputted by each user regarding all possible counterparties. Thus, potential counterparties are then able to identify which orders they are eligible to trade based upon the coded credit preference data. The user is also provided with a feature whereby the user can input an interest reset risks portfolio into the system and then view his/her interest rate reset risk position relative to other counterparties that have inputted their respective interest rate reset risks portfolios in order to determine possible offsetting positions. The user is also provided with a facility for placing orders for various financial instruments via an auction process whereby the system automatically matches all orders and determines the prices and quantities executed based on several guidelines including user credit preferences. In addition, the user is provided with a switch auction facility whereby the user can use the auction process to trade forward rate agreement (FRA) switches with other counterparties utilizing the same credit preference screening.

Brief Summary Text (29):

At the central processing center, multiple server modules operate simultaneously to perform various functions such as delivery of market information to the user, credit preference verification of a requested trade, execution of trades, term negotiation, acknowledgments, position discovery, and auction execution. The central processing center also includes a database which provides persistent storage of information such as historical data, instrument definitions, user credit preferences, user and business unit data, and historical market data.

Drawing Description Text (25):

FIGS. 22A and 22B are examples of an auction interface and a switch auction interface, respectively.

Drawing Description Text (32):

FIG. 29 is a flowchart of the auction feature in accordance with an embodiment of the present invention.

Drawing Description Text (33):

FIG. 30 is a detailed flowchart of the auction feature in accordance with an embodiment of the present invention.

Drawing Description Text (34):

FIG. 31 is a flowchart of the calculation of the average auction price in accordance with an embodiment of the present invention.

Drawing Description Text (35):

FIG. 32 is a flowchart of the matching performed in an auction in accordance with an embodiment of the present invention.

Drawing Description Text (36):

FIG. 33 is a flowchart of the validation of a resulting order in an auction in accordance with an embodiment of the present invention.

Detailed Description Text (6):

The present invention also provides financial markets with electronic trading systems and methods for identifying possible counterparties and executing trades for forward rate agreement (FRA) switches and other financial products. The present invention further provides the ability for the users to place orders for various financial instruments via an auction process that can be one-to-many or many-to-many, whereby the system automatically matches all orders and determines the prices and quantities executed on the basis of several guidelines or parameters. A further feature of the present invention is an auction trading that is available to users, whereby users can use an auction process to trade FRA switches with the other counterparties. This form of auction is referred to hereinafter as a switch auction. In the auctions, the price is preferably pre-determined by the system prior to the auction taking place. The prices determined by the system are referred to hereafter as the fair price.

Detailed Description Text (16):

With reference to FIG. 2, illustrated is the central processing center 12 which includes a trade mechanism 30, a group server mechanism 32, auction mechanism 34, and a switch mechanism 35, all in accordance with the present invention. The trade mechanism 30 includes several modules including a market inventory module 38, an execution module 40, and a settlement module 42. The market inventory module 38 holds the passive orders for each market and broadcast the same to the trader workstations 20 when new orders are received, validates any proposed trade, performs a second and final credit preference check that cannot be performed at the trader workstation 20, validates that both traders are still on-line (i.e., active), executes the trade, and sends out a status update to the traders. The execution module 40 receives the executed trade and proposes a trade for a greater quantity if applicable (referred to as the will-do-more feature), and processes term negotiation if applicable. The settlement module 42 calculates the appropriate commission, generates the confirmation, and sends the confirmation to the two parties.

Detailed Description Text (18):

The switch mechanism 35 is configured to receive a portfolio of interest reset risk for a plurality of users and provide the users with an anonymous view at their relative position to other possible counterparties and available trades that may offset the user's interest rate reset risk. The auction mechanism 34 performs a switch auction function whereby orders or FRA's are received from the users and anonymously matched based on an algorithm that takes user credit preferences into consideration.

Detailed Description Text (19):

The trader mechanism 30, group server mechanism 32, auction mechanism 34, and switch mechanism 35 may be collectively implemented as market module 44.

Detailed Description Text (20):

The central processing center 12 includes a processor 50 that communicates with the other elements within the central processing center 12 via a system interface 52. An input device 54, for example a keyboard or a pointing device, is used to input data from a user, and a screen display device 56, for example, a monitor, is used to output data to the user. A memory 58 within a central processing center 12 includes the market module 44 and a conventional operating system 60 which communicates with the market module 44 and enables execution of the market module 44 (including the trade mechanism 30, group server mechanism 32, and auction mechanism 34) by processor 50. An external communication line 62 is provided to interface the central processing center 12 with other computer systems or computer-based devices such as networks 16. Lastly, a hard disk 64 may be provided as a persistence memory device, as well known to the industry. Preferably a relational database 66 resides on the

hard disk 64 for maintaining information such as current state information for each trade workstation 20, user and business unit data, financial instrument definitions, order states, transaction states, confirmation states, historical confirmation and transaction data, credit preferences of all business units, and historical market data. Preferably, the relational database 66 is based on structured query language (SQL) management system, as well known in the industry.

Detailed Description Text (21):

With reference now to FIG. 3, illustrated is an embodiment of the trader workstations 20 which includes a trader module 70 in accordance with the present invention. The trader module 70 may be implemented as a component of a Java-capable Internet browser program 72, such as Netscape Communicator.RTM. (Netscape Communication Company) or Microsoft.RTM. Internet Explorer (Microsoft Corporation) version 3.0 or higher. Thus, in a preferred embodiment, the trader module 70 is a Java-based program that is downloaded as Java applets for each session and implemented by a Java virtual machine (JVM) 73 within the Internet browser 72. The JVM 73 of the Internet browser program 72 may be a stand alone software application, a plug-in application, or a helper application, all of which is well known in the art. The trader module 70 includes a market interface module 74, a credit preference module 76, a symbol module 78, switch module 80, and an auction module 81. The market interface module 74 comprises one or more user interfaces for presenting information to the user. In the context of the present embodiment, a user interface is provided as a window within the context of the Internet browser program 72. However, a user interface in accordance with the present invention may take many forms such as a three dimensional virtual reality world based on virtual reality modeling language (VRML), an audio receiver/transmitter, or any other suitable form of interface between the user and trader workstations 20. In a preferred embodiment, the market interface module 74 comprises a control center interface, market entry interface, market detail interface, switch interface, and auction interface, all of which are described in more detail hereinafter.

Detailed Description Text (23):

The symbol module 78 stores the symbol definitions utilized for the subject-based addressing of the different financial instruments traded in the system 10. The symbol module 78 also provides means for defining new symbols for use with the system 10. The switch module 80 is configured to receive interest rate reset risk portfolios from the user which are sent to the switch mechanism 35 at the central processing center 12. The relative position information generated by the switch mechanism 35 is returned to the switch module 80 which presents the position information to the user via the market interface module 74. The auction module 81 is configured to receive multiple or batch orders on a single instrument at different price levels, and in case of a switch auction, to receive a interest rate reset risk portfolio from the user. The inputted orders or portfolio is sent to the auction server 34 at the central processing center 12 where the auction or switch auction, respectively, is performed. The resulting matches are returned to the auction module 81 which presents the results to the user via the market interface module 74.

Detailed Description Text (31):

The following are features of the present invention which provide particular functionalities and utilities. These features include interfaces such as a command center interface, a market entry interface, a market details interface, an outstanding order interface, an historical order interface, and functions such as symbology, credit preference checking, term negotiation, automatic notification, interest rate reset risk switches, and order auction.

Detailed Description Text (34):

From the command center interface 130, a user can access the features of the system 10 which enable the user to monitor and control their trading in the system 10. Specifically, from the command center interface 130 the user can access the following areas of functionality as menu options on the tool bar 132: a market entry interface (described below with reference to FIG. 12), a credit settings interface (described below with reference to FIG. 10), a switch engine interface (described below with reference to FIG. 22), auction interface (See FIG. 13), tools, a user preference interface (described below with reference to FIGS. 6A and 6B), an historical order blotter interface (described below with reference to FIG. 17), an outstanding order blotter interface (described below with reference to FIG. 16), links to external applications such as MarketSheet.TM. (a trademark of TIBCO, Inc.) (referred to herein as the quote screen and graph screen for illustrative purposes), a logout interface (provides secure exit from the system 10), and a help interface

where detailed on-line help is provided. The menu options that appear in the tool bar 132 are preferably customizable to a user, and those described are merely illustrative.

Detailed Description Text (41):

The class field identifies the principal product class into which the financial instrument falls. The class parameter is designed to group financial contracts together which share similar attributes. For purposes of the present disclosure, eleven classes of instruments, each with distinct characteristics covering forward rate agreements, interest rate swaps, interest rate basis swaps, interest rate options, foreign exchange and switches, will be covered. It is noted that a switch is the simultaneous purchase and sale of two instruments within the same class. The following is a listing of the eleven classes and the associated abbreviation for each: FRA--forward rate agreement SWP--interest rate swap CAP--interest rate option (cap or floor) SOP--interest rate option (swaption) IBS--interest rate basis swap (floating vs. floating swap) SPT--foreign exchange spot FWD--foreign exchange outright forward FXS--foreign exchange swap SWF--FRA switch SWT--switch any other pair of instruments in the same class CBS--currency basis swap

Detailed Description Text (143):

In addition to the switch engine, the system 10 provides trading methodologies referred to as the auction and switch auction. Although auctions are held in a variety of markets, some of which are electronic, the auction and switch auction have no known counterpart in the derivatives markets. The auction and switch auction trading methodologies were developed in order to provide an auto matching process for switches. However, the system 10 can use these auction methodologies for auto matching for a wide variety of other financial products, not just switches.

Detailed Description Text (144):

Unlike traditional auctions, where once a trade is completed the counterparties are free from future financial commitments, with derivatives trading, the counterparties may end up with multi-year financial commitments to one another once a trade is executed. In order to deal with this relatively unique problem, the auction and switch auction take the credit preferences of the users into account. The auction methodologies herein are referred to as a two way Dutch auction with credit. In conducting such an auction, users submit orders into the auction module 81 of the trader workstation 20 (FIG. 3) which communicates the information to the auction mechanism 34 of the central processing center 12 (FIG. 2). The orders are submitted via an auction interface 430, as illustrated in FIG. 22A, by price, quantity, and action.

Detailed Description Text (145):

With reference to FIG. 22A, the auction interface 430 includes a queued orders window 432 into which the user enters an order, and a submitted orders window 434 which shows the orders submitted to the auction mechanism 34 via the auction module 81. Orders can be added via the Add button 436. Orders are moved from the queued orders window 432 to the submitted orders window 434 by highlighting the order and then selecting the Submit button 438. All entered orders in the queued orders window 432 can be submitted at once by highlighting all the orders and then selecting the Submit All button 442. Prior to submitting an order, the orders in the queued orders window 432 can be edited via the Edit button 440 or canceled via the Cancel button 444

Detailed Description Text (146):

In accordance with the auction, the orders are filled at their entered price or better, and between counterparties that satisfy the credit preferences of one another. The auction mechanism 34 then conducts the auction, preferably utilizing the following constraints and priorities to ensure fairness.

Detailed Description Text (147):

The auction price is calculated by finding the price at which the most volume is traded. This condition is sufficient to generate a fair price, and all transactions should be completed at this price. It is noted that this price is generated without taking credit into account. The matching of orders is completed to ensure that credit preferences (including complex rules) are safe guarded and to ensure that the minimum number of tickets are generated. The better submitted prices will have priority, and all orders at the auction-price are filled in proportion to each other. Under these constraints, the auction mechanism 34 executes the auction, matching users and generating a settlement list. The settlement list comprises the

trades resulting from the auction.

Detailed Description Text (149):

In addition to the general auction facility described herein, the present invention also offers a dedicated limited auto-matching process for switches referred to as the switch auction. The switch auction does not have to be a full auction, in that the price may be set by the system 10. The price will, however, be available before the commencement of the matching. This will allow all users to understand the levels that will be used before entering into the switch auction. This also allows the users to maintain control of their positions.

Detailed Description Text (150):

As with the general auction, the positions of each trader are loaded into the system 10 utilizing a switch auction interface 460, as illustrated in FIG. 22B. The switch auction interface 460 has two parts, an auction list 462 and an auction status 464. In the auction list 462, various auctions and their respective statuses are listed by FLOPT and currency. In the auction status 464, the auction selected in the auction list 462 is displayed and identified (including the open and close day/time). The positions 466 for respective dates 468 are entered by a user, and do not need to add to zero, but should include positions of both signs (i.e., long and short). The rate 470 is the price at which the auction is conducted. The rate 470 is displayed a predetermined amount of time before the auction is conducted so that the participants have the opportunity to step out of the switch auction if they so desire. The rate is preferably based on available market factors, and may be calculated by a calcserver (as described below). The results column 472 is the total trade amounts resulting from the auction. The amount displayed in the results column 472 for a given date may be the cumulative amount from multiple transactions with multiple parties. Additional control buttons 474 enable the user to submit an order, cancel an order, cancel all orders, or change an order. The switch auction will auto-match the position, taking credit preferences of the users into account so that (1) a maximum volume is executed and (2) a minimum number of tickets is generated.

Detailed Description Text (151):

The switch auction utilizes the above two rules to ensure fairness. No user will be given priority over any other user except as required to satisfy the respective credit preferences. Preferably, only two-way switches will be offered. Switches are a risk management tool, and switches generated between three counterparties introduces substantially more credit risk than a straight two-way switch.

Detailed Description Text (152):

At this point, the calcserver which calculates the auction rate and price information, and other relevant data for operation of the system 10 is described. The calcserver provides the switch mechanism 35 with the forward rate for any given index for each day, the system price quoted in the market entry interface 250, and OTC derivative prices derived from the yield curve. The calcserver comprises a preprocessor, a zero curve server, a FRA server and a Swap server. The preprocessor gathers real-time data from outside data vendors (such as Reuter or Telerate) and from internal system sources (such as data normally entered into system 10), and prepares the data for processing by the other components of the calcserver. The zero curve server reads in the market rates (including price and yield for a variety of class instruments such as money market rates, swap rates, future prices, swap spread, bond yields and FRA's) as provided by the preprocessor, and generates therefrom the zeros and discount factors for each currency and level of credit. In particular, a zero coupon yield curve (i.e., zero curve) comprises a set of points representing the calculated interest rate or discount fact from observable market rates across the term structure (e.g., 0 to 30 years) such that any cash flow can be discounted to today in one step without the consideration with decompounding. Thus, there is a different zero curve for each index/currency pair. The FRA and Swap servers are instrument specific servers that calculate forwards, RQ (as defmed above), durations and fair prices.

Detailed Description Text (191):

The system 10 further provides the functionality to permit the trading of various financial instruments via an auction function, as generally illustrated in a flowchart 600 of FIG. 29. The system performs what is referred to herein as a two way Dutch auction with credit preferences. In this auction methodology, users submit orders into the auction giving both the price and the quantity at which they wish to trade, as indicated by block 602. The auction process then begins by calculating the price at which the most volume is traded, as indicated by block 604. This is called

the auction-price. The auction-price is a fair price at which all transactions will be completed. In this calculation, the credit preferences of the various counterparties are not yet taken into account. At block 606, the system matches up orders such that all credit preferences are taken into account such that the minimum number of tickets are generated. The better submitted prices have priority, and all orders at the auction-price are preferably filled in proportion to each other. In a preferred embodiment of the auction feature, the auction process could be conducted a few times a day in order to maximize liquidity. The system also offers the functionality to enable the user to trade forward rate agreement switches and other switch products in an auction environment similar to that described previously.

Detailed Description Text (193):

At this point, a more detailed description of the operation and functionality of the auction mechanism 34 is provided. With reference to FIG. 30, the auction mechanism 34 initially receives an order list from those traders wishing to participate in an auction, as indicated by block 620. The orders within the order list are separated into a BuyList and SellList, as indicated by block 622. At block 624, a price list is generated and sorted from highest price to lowest price. It is then determined at block 626 whether an auction will take place by determining if the price list is empty. If the price list is empty, then no auction takes place, as indicated by block 628. If the price list is not empty, then the average auction price is calculated, as indicated by block 630, and as described in greater detail with reference to FIG. 31. Next, the orders are matched such that the minimum number of tickets are generated, taking into account the credit preferences of all parties, as indicated by block 632, and as described in greater detail with reference to FIGS. 32A and 32B. Once the orders have been matched, a settlement list is generated, representing the execution of transactions via the option, as indicated by block 634.

Detailed Description Text (194):

With reference to FIG. 31, the average auction price is calculated. In particular, beginning at block 640, the initial parameters are established, such as $i=1$, $j=1$, difference equal $s1-b1$, $k=2$, and $N=\text{size of price list}$. In addition, the total amount in the BuyList is $B.\text{sub}.i$, and the total amount in the SellList is $S.\text{sub}.N-i+1$. Next, it is determined at block 642 whether $k=N+1$. If so, then the average auction price is $P.\text{sub}.I$. If it does not, then it is determined at block 644 whether difference is greater than 0. If it is, then parameter j is set to $j=j+1$, the parameter difference is set to $\text{difference}=\text{difference}+B.\text{sub}.j$, and the parameter k is set to $k=k+1$, as indicated by block 646. If not, then the parameter i is set to equal $i=i+1$, the parameter difference is set to $\text{difference}=\text{difference}+S.\text{sub}.i$, the parameter k is set to $k=k+1$, as indicated by block 646. The steps of block 642-648 are repeated until determination is made at block 642 that $k=n+1$.

Detailed Description Text (195):

With reference to FIG. 32, the step of matching orders in an auction is described in greater detail. In particular, items in the BuyList and SellList are eliminated according to the average auction price, as indicated by block 650. It is then determined at block 652 whether the size of BuyList is greater than zero and the size of SellList is greater than zero. If one or the other is not greater than zero, then the settlement list is generated, as indicated by block 654. If both the BuyList and SellList are greater than zero, then the parameter $Bsum$ is set to equal the total volume in BuyList and $Ssum$ is set to equal the total volume in SellList, as indicated by block 656. It is then determined at block 658 if $Ssum$ is greater than the $Bsum$. If it is, then the parameter $list1$ is set to equal SellList and the parameter $list2$ is set to equal BuyList, as indicated by block 660. Next, the $order1$ parameter is set to equal to the first order in $list1$ and $order1$ is removed from $list1$, as indicated by block 662. The maximum/minimum and credit rules are then applied to search the BuyList for matching $order2$. A matching $order2$ is located and a trade is generated between $order1$ and $order2$, as indicated by block 666. If at block 668 it is determined that $Ssum$ is not greater than $Bsum$, then parameter $list1$ is set to equal BuyList and $list2$ is set to equal SellList, as indicated by block 668. Next, $order1$ is set to equal the first order in $list1$ and $order1$ is removed from $list1$, as indicated by block 670. Next, $list2$ is searched in order to find a match to $order1$ using the maximum-minimum rule and the credit preferences associated with the orders, as indicated by block 672 and described in greater detail with reference to FIG. 33. A trade is then generated between $order1$ and $order2$, as indicated by block 674.

Detailed Description Text (197):

The operation of the central processing center 12 is now generally described with reference to FIG. 34 which functionally depicts the group server mechanism 32, the auction mechanism 34 and switch mechanism 35, the market inventory module 38, the execution module 40, and the settlement module 42. A legend 710 is provided to denote the flow of the different orders, interactive and switch orders, auction orders, and switch auction orders, between the group server mechanism 32, the auction mechanisms 34, the market inventory module 38, the execution module 40, and the settlement module 42. Beginning with the interactive/switch order generated by the user at one of the trader workstations 20, the central processing center 12 initially receives the interactive/switch order 712 at the group server mechanism 32. At the group server mechanism 32, an order record is created, the credit preferences of the users are checked to assure the trade conforms to the current credit preferences of the users, and a transaction order is created. If the order is passive, then it flows through to the market inventory module 38 where it is distributed to the trader workstations 20 for viewing via respective market detail interfaces 302 of the users logged on the system 10. If the order is active, then it flows through to the market inventory module 38 where order matching occurs if the order is a part of an auction, and pre-execution of the order also occurs. Pre-execution may include, for instance, a back-end credit check to ensure up to date credit preferences and to accommodate complex checks. Further, in a manner that is transparent to the users, the market inventory module 38 requires the trader workstations 20 of the respective users that are a party to the trade to respond with an acknowledgement to assure that there has been no loss of communication or that one of the users has not logged off. Upon receiving the acknowledgement, the market inventory module 38 executes the trade and then publishes the updated volume and status to the users logged on to the system 10 for viewing via respective command center interface 130 of the users.

Detailed Description Text (200):

In the case of an auction, an auction order 714 received by the auction mechanism 34. The auction module 34 enables auction and switch auction functionality of the present invention. The auction module initially receives the auction orders 714 a from a plurality of users during a countdown to the actual auction time. Once the auction time has arrived and the auction orders have been submitted, the auction mechanism 34 performs the auction matching with credit preferences of the users taken into account. The auction matching performed by the auction mechanism 34 is in accordance with the present invention, that is, the auction is based on a fair price and executed for a maximum volume traded with a minimum number of tickets generated. From the auction mechanism 34, once the counterparties have been matched the market inventory server essentially treats the resulting auction orders as though it would an interactive/switch order 712. In particular, the market inventory module 38 perform order matching, pre-execution, acknowledgement, trade execution and volume/data publishing.

Detailed Description Text (201):

The auction order 712 is then delivered to the execution module 40. At the execution module 40, an auction order and a switch auction order are traded slightly different. For instance, an auction order may be increased in quantity by one of the users that is a party to the auction order via the will-do-more. On the other hand, switch auction orders do not make use of this feature, but will go directly to the confirmation process. Further, where auction orders may also have their non-commercial terms negotiated using the term negotiation feature, switch auction orders will flow to the settlement module 42 directly after confirmation. Both auction orders and switch auction order are then received by the settlement module 42 which performs essentially the same operations to the auction order as it does to an interactive/switch order 712. Specifically, the settlement order 42 provides similar explosion and commissioned calculations which complete the order process.

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US-PAT-NO: 5970476

DOCUMENT-IDENTIFIER: US 5970476 A

TITLE: Method and apparatus for industrial data acquisition and product costing

DATE-ISSUED: October 19, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fahey; Bill G.	Madison	OH		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE	CODE
Manufacturing Management Systems, Inc.	Madison	OH				02

APPL-NO: 08/ 715552 [PALM]

DATE FILED: September 19, 1996

INT-CL: [06] H04 L 27/00

US-CL-ISSUED: 705/28; 705/29, 707/1, 707/10, 707/100

US-CL-CURRENT: 705/28; 705/29, 707/1, 707/10, 707/100

FIELD-OF-SEARCH: 705/28, 705/29, 707/1, 707/10, 707/100, 707/102, 707/200

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>4757267</u>	July 1988	Riskin	379/113
<input type="checkbox"/>	<u>4954958</u>	September 1990	Savage et al.	364/444
<input type="checkbox"/>	<u>5191522</u>	March 1993	Bosco et al.	364/401
<input type="checkbox"/>	<u>5201046</u>	April 1993	Goldberg et al.	395/600
<input type="checkbox"/>	<u>5226118</u>	July 1993	Baker et al.	395/161
<input type="checkbox"/>	<u>5249120</u>	September 1993	Foley	705/1
<input type="checkbox"/>	<u>5301320</u>	April 1994	McAtee et al.	395/650
<input type="checkbox"/>	<u>5303367</u>	April 1994	Leenstra et al.	395/600
<input type="checkbox"/>	<u>5305434</u>	April 1994	Ballard et al.	395/155
<input type="checkbox"/>	<u>5311437</u>	May 1994	Leal et al.	364/468
<input type="checkbox"/>	<u>5388196</u>	February 1995	Pajak	95/159
<input type="checkbox"/>	<u>5437027</u>	July 1995	Bannon et al.	395/600
<input type="checkbox"/>	<u>5528490</u>	June 1996	Hill	364/403

OTHER PUBLICATIONS

Fahey, Bill G., Building an ABC Data Warehouse, Management Accounting, Mar. 1996.
Francett, Barbara, Database Technologies Vie for Data Warehouse Occupancy, Software Magazine, Apr. 1995.

Laney, Doug, Industry Analysis: All Roads Lead to the Data Warehouse.

Oracle Creative Services and Early Gee Design, the Executive's Guide to Building a Data Warehouse, Oracle Corporation 1995.

Rottenberg, Alan, Sr., Industry Analysis: Demands for Data Create New Opportunities.

Swanson, Doug, Industry Analysis: The Expanding Role of Middleware in Data Warehousing.

Industry Analysis: The Smart Warehouse Solution (From the Back Office to the Front Lines).

ART-UNIT: 274

PRIMARY-EXAMINER: Peeso; Thomas R.

ABSTRACT:

An information storage, processing, and reporting system (20) for tracing enterprise wide product data, the system comprises a data storage (23, 26, 50) is adapted for storing data (106, 120, 112, 108) entries related to a product family. The data is received in a data warehouse system (42). The data is cataloged (54, 56, 58, 62). Cataloging the related data includes identifying data elements related to selected product families. The system indexes (70, 140, 144, 148, 149, 159, 169, 179) the identified data elements which are related to a selected first product family in accordance with the data representative thereof. Interconnected tables 140, 144, 148, 149, 159, 169, 179 are used for grouping indexed data elements pursuant to data representative of selected criterion. A storage medium (50) is adapted for storing the grouped data elements in a relational database (52). A digital processor (44) processes (36, 38, 116, 128) the grouped data elements in accordance with Activity Based Cost criteria. The memory medium (50) is adapted for storing the processed data (122, 110, 114, 124, 56, 54) in a relational database structure (52).

30 Claims, 16 Drawing figures

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L17: Entry 1 of 2

File: USPT

Sep 7, 1999

US-PAT-NO: 5950178

DOCUMENT-IDENTIFIER: US 5950178 A

TITLE: Data processing system and method for facilitating transactions in diamonds

DATE-ISSUED: September 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Borgato; Sergio	Las Vegas	NV	89123	

APPL-NO: 08/ 902524 [PALM]

DATE FILED: July 29, 1997

INT-CL: [06] G06 F 17/60

US-CL-ISSUED: 705/37; 705/35, 707/100, 707/102, 707/104

US-CL-CURRENT: 705/37; 705/35, 707/100, 707/102, 707/104.1

FIELD-OF-SEARCH: 705/1, 705/35, 705/37, 707/100, 707/102, 707/104

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

☐ **Search Selected**☐ **Search ALL**

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>5124935</u>	June 1992	Wallner et al.	347/225
<input type="checkbox"/>	<u>5828405</u>	October 1998	Vanier et al.	348/61

ART-UNIT: 271

PRIMARY-EXAMINER: Cosimano; Edward R.

ABSTRACT:

A data processing system and method for facilitating transactions in precious stones such as diamonds is set forth. A host processor stores data input by a seller from a remote terminal for a stone to be sold based upon weight, cut shape, cut quality and a matrix of color and clarity. From remote terminals sellers may input data to list stones which they offer for sale with the offer price and buyers make bids. The host processor stores the data which may be remotely viewed at remote terminals which reproduce the matrix and show the lowest offer price, highest bid price and last sales price for each category of the matrix. When a bid and offer match for a listed stone, confirmation is issued to the buyer and seller to confirm the sale. A third party escrow will receive the sold stone and payment and thereafter distribute it to the receiving party.

21 Claims, 10 Drawing figures

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L35: Entry 1 of 1

File: USPT

Oct 27, 1998

US-PAT-NO: 5828405

DOCUMENT-IDENTIFIER: US 5828405 A

TITLE: Gemstone registration system

DATE-ISSUED: October 27, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vanier; Dana J.	Ottawa			CA
Wallner; Hermann F.	Richmond			CA
Leydon; Michael	Saskatoon			CA

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Omphalos Recovery Systems Inc.	Saskatoon			CA	03

APPL-NO: 08/ 745361

DATE FILED: November 8, 1996

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
CA	2162532	November 9, 1995

INT-CL: [06] H04 N 7/18

US-CL-ISSUED: 348/61; 348/161, 356/30

US-CL-CURRENT: 348/61; 348/161, 356/30

FIELD-OF-SEARCH: 348/61, 348/79, 348/125, 348/131, 348/161, 356/30, 382/109

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<u>3947120</u>	March 1976	Bar-Issac	356/30
<u>4728770</u>	March 1988	Kaprelian	219/21
<u>5015090</u>	May 1991	Weisman et al.	356/30
<u>5124935</u>	June 1992	Wallner	356/30
<u>5379102</u>	January 1995	Takeuchi	356/30
<u>5422711</u>	June 1995	Can	356/30
<u>5430538</u>	July 1995	Kobayashi	356/30
<u>5544254</u>	August 1996	Hartley	356/30
<u>5615005</u>	March 1997	Valente	356/30

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
2081439	February 1982	GB	
9209882	June 1992	WO	
9312496	June 1993	WO	
9511447	April 1995	WO	
9623207	August 1996	WO	

ART-UNIT: 273

PRIMARY-EXAMINER: Britton; Howard W.

ABSTRACT:

The gemstone recordal and retrieval system records optical images for gemstones in an effective manner. The optical image of a gemstone is captured using a two-dimensional charge coupled device whereby the time to capture the image is relatively short. The optical images can be improved in definition by varying the output of a laser LED. This fast feedback and adjustability provides accurate recordings.

13 Claims, 7 Drawing figures

Full	Title	CLS.1	REF.1	SEQ.1	ATT.1

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L19: Entry 1 of 2

File: USPT

Jun 30, 1987

US-PAT-NO: 4677552

DOCUMENT-IDENTIFIER: US 4677552 A

TITLE: International commodity trade exchange

DATE-ISSUED: June 30, 1987

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sibley, Jr.; H. C.	Dallas	TX	75231	

APPL-NO: 06/ 658360 [PALM]

DATE FILED: October 5, 1984

INT-CL: [04] G06F 15/20, G06F 15/24, G06F 15/38

US-CL-ISSUED: 364/408; 364/401, 364/419, 364/900

US-CL-CURRENT: 705/37; 379/93.12, 379/93.19, 380/270, 705/80, 902/39

FIELD-OF-SEARCH: 364/400, 364/401, 364/408, 364/419, 364/2MSFile, 364/9MSFile, 235/375, 235/379, 343/352-354

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

☐ Search Selected☐ Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>3349398</u>	October 1967	Werth	343/353 X
<input type="checkbox"/>	<u>3573747</u>	April 1971	Adams et al.	340/172.5
<input type="checkbox"/>	<u>4114027</u>	September 1978	Slater et al.	364/408 X
<input type="checkbox"/>	<u>4334270</u>	June 1982	Towers	364/408 X
<input type="checkbox"/>	<u>4346442</u>	August 1982	Musmanno	364/408
<input type="checkbox"/>	<u>4390968</u>	June 1983	Hennessy et al.	364/900
<input type="checkbox"/>	<u>4412287</u>	October 1983	Braddock, III	364/408
<input type="checkbox"/>	<u>4566066</u>	January 1986	Towers	364/408

ART-UNIT: 236

PRIMARY-EXAMINER: Harkcom; Gary V.

ABSTRACT:

An International Commodity Trade Exchange having a central exchange post for providing international commodity information and a plurality of local exchanges in

at least two countries around the world. A plurality of user computer terminals are coupled to each of the local exchanges and can request and receive data representing marketing information directly from the central exchange host and transmit data representing bids and offers to any other user terminal around the world through the local exchanges and the host exchange. The communication takes place through a satellite communication network thereby allowing traders associated with any particular local exchange to trade in a selected market with any other trader associated with any other local exchange at any member site located in any country around the world.

23 Claims, 10 Drawing figures